

DOCUMENT RESUME

ED 356 093

PS 021 341

AUTHOR Leifer, Myra; And Others
TITLE Longitudinal Study of the Psychological Effects of Sexual Abuse in Foster Children and Children Who Return Home.
SPONS AGENCY National Center on Child Abuse and Neglect (DHHS/OHDS), Washington, D.C.
PUB DATE Mar 93
CONTRACT 90-CA1356
NOTE 32p.; Paper presented at the Biennial Meeting of the Society for Research in Child Development (60th, New Orleans, LA, March 25-28, 1993).
PUB TYPE Speeches/Conference Papers (150) -- Reports - Research/Technical (143)
EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS Adolescents; Affective Measures; *Black Youth; Child Abuse; Children; Child Welfare; Comparative Analysis; Coping; *Emotional Adjustment; *Emotional Disturbances; Family Environment; *Females; *Foster Care; *Sexual Abuse
IDENTIFIERS Affective Response; *Placement (Foster Care)

ABSTRACT

This longitudinal study examined the effect of being placed in foster care versus remaining at home upon the psychological functioning of 64 black, sexually abused girls aged 5 to 16 years. Only subjects molested by persons well known to them were included in this study. The children were initially evaluated using a multi-method assessment protocol that included self-reports, parent reports, and projective and cognitive measures, within 6 months following report of the abuse, and were reevaluated approximately 1 year later. A caregiver interview was also conducted with the child's biological mother or foster mother. Findings indicated that, over the year, the children showed a decline in affective distress and depression. However, the children continued to show compromised ego functioning, disturbed perceptions of relationships, and high levels of stress relative to their adaptive coping skills. Overall, no significant differences in the psychological functioning were found between the girls who remained at home and those who were placed in foster care. In supplementary, cross-sectional analyses involving 24 additional subjects, several maternal and child variables were found to be related to the child's adaptation. (MM)

* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *

ED356093

PS 021341

Longitudinal Study of the Psychological Effects of
Sexual Abuse in Foster Children and
Children Who Return Home

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION
CENTER (ERIC)

X This document has been reproduced as
received from the person or organization
originating it.

□ Minor changes have been made to improve
reproduction quality.

• Points of view or opinions stated in this docu-
ment do not necessarily represent official
OERI position or policy.

Myra Leifer
Illinois School of
Professional Psychology

Jeremy P. Shapiro
Child Guidance Center
of Greater Cleveland

Layla Kassem
Chicago School of
Professional Psychology

Adelaide M. Lang
Child Guidance Center
of Greater Cleveland

"PERMISSION TO REPRODUCE THIS
MATERIAL HAS BEEN GRANTED BY

Myra
Leifer

Running Head: Longitudinal study of sexual abuse

TO THE EDUCATIONAL RESOURCES
INFORMATION CENTER (ERIC)."

This study was funded by the National Center on Child Abuse and
Neglect. Grant No. 90 CA1356. We thank Don Hedeker and Susan
Crawley for their help with this research, and Brenda Davis and
Ruth Smookler for typing the manuscript. Correspondence should be
addressed to Myra Leifer, Illinois School of Professional
Psychology, 220 South State Street, Chicago, IL 60604.

*Paper presented at the SRCD, March, 1993,
New Orleans, LA.*

Abstract

This study longitudinally examined the effect of foster care placement versus remaining at home upon the psychological functioning of 64 black, sexually abused girls aged 5-16 years. The children were initially evaluated with a multi-method assessment protocol within six months following report of the abuse and then re-evaluated approximately one year later. The findings indicate that the group as a whole showed a decline in affective distress and depression. However, the children continued to show compromised ego functioning, disturbed perceptions of relationships, and high levels of stress relative to their adaptive coping skills. The caregivers continued to rate the children as showing many behavioral problems, low social competence, considerable sexual abuse-related anxiety and sexual acting-out behavior. Overall, there were no significant differences in the psychological functioning of the girls who remained at home and those who were placed in foster care. In supplementary, cross-sectional analyses involving 24 additional subjects, several maternal and child variables were found to be related to the child's adaptation.

A growing body of research indicates that childhood sexual abuse is associated with multiple short- and long-term psychological problems (Beitchman, Zucker, Hood, da Costa and Akman, 1991; Beitchman, Zucker, Hood, da Costa, Akman and Cassavia, 1992; Browne and Finkelhor, 1986; Finkelhor, 1990; Kendall-Tackett, Williams and Finkelhor, 1993). Studies of the initial effects of sexual abuse report a variety of symptoms in at least some portion of victim population (Finkelhor, 1990). Much of this research has been based on the assessment of adults victimized as children or studies of the initial effects of sexual abuse following disclosure. There have been only a few longitudinal studies of sexually abused children (Bentovim, van Elberg and Boston, 1988; Friedrich and Reams, 1987; Gomes-Schwartz, Horowitz and Cardarelli, 1990; Goodman et al., 1992; Mannarini, Cohen, Smith and Moore-Motily, 1991; Runyan et al., n.d.; Runyan, Everson, Edelsohn, Hunter and Coulter, 1988). These studies suggest that while many sexually abused children show improvement in their psychological functioning over time, there is a sizeable group - anywhere from 10% to 24% - of children who show a worsening of symptoms (Kendall-Tackett, Williams and Finkelhor, 1993).

There is a growing interest in the question of how placement in foster care affects the sexually abused child's recovery (Finkelhor, 1986). Although approximately 17% of sexually abused children are placed in foster care (Finkelhor, 1983), little

longitudinal research exists on the way in which foster care mediates the impact of sexual abuse.

Research regarding the psychological impact of foster care upon the sexually abused child yields contradictory findings. The Tufts study (1984; Gomes-Schwartz, et al., 1990) found that children who were removed from their homes because of sexual abuse showed greater psychological distress and behavioral problems both at intake and at an 18-month post treatment follow-up evaluation, compared to children who remained at home. In contrast, Leifer, Shapiro and Kassem (in press) found no difference between sexually abused girls in foster care and those who remained at home on measures of child psychological and behavioral functioning administered within six months of disclosure. Other studies indicate that abused children function poorly whether at home or in foster care (Runyan et al., 1988; Runyan and Gould, 1985; Wald, Carlsmith and Leiderman, 1988).

It remains unknown whether the behavior problems noted among children in foster care are attributable to a disruptive family environment prior to placement, to the effects of the maltreatment that precipitated placement, to the separation from parents, and/or to factors in the foster care placement itself. Children entering foster care show high levels of problematic behaviors (Hochstadt, Jaudes, Zimo & Schacter, 1987; Runyan & Gould, 1985a) and foster care may have less impact on the development of problems than do chaotic family relationships experienced prior to

placement (Hulsey & White, 1989). Longitudinal studies that include data about the status of the children at the time foster care begins are needed to address this issue.

The aim of this study was to longitudinally assess the psychological impact of sexual abuse in foster care children and those who remain at home in a group of victimized girls who we began studying within six months of disclosure (Leifer, Shapiro & Kassem, in press; Leifer, Shapiro, Martone & Kassem, 1991; Shapiro, Leifer, Martone & Kassem, 1990; Shapiro, Leifer, Martone & Kassem, 1992). This initial research identified a number of maternal variables associated with foster placement including low SES, inadequate support to daughters, substance abuse, poor social support, and negative perceptions of parents. Placement was also associated with abuse-related variables including number of abuse incidents and number of perpetrators. Age was not related to placement. At Time I there were no differences in degree of maladjustment between girls remaining at home and those placed in foster care.

Method

Subjects

Subjects for the longitudinal analyses included 64 Black females aged 5 through 17 who were assessed at both Time 1 and Time 2. Thirty-two of the subjects were in foster care, 28 lived at home, and 4 were in residential treatment. Two children in the foster home group experienced a change in placement during the

time between the Time 1 and the Time 2 assessments. Fourteen subjects dropped out of the study because of either caretaker non-compliance or our inability to locate the family. Eight of the subjects were in foster placement and six lived at home. One child was sexually reabused during the interval between assessments: data on this child was excluded from the present analyses.

In order to perform some supplementary cross-sectional analyses that required additional subjects, we added 24 children to the sample at Time 2; these analyses involved 88 subjects. Of the 24 additional children, 13 were in foster care and 11 lived at home.

Additional assessment was performed one year later, but these data are not reported here because, as a result of substantial subject attrition, the Time 3 sample did not appear to be adequately representative of the sample. (Only 20 subjects had complete data at Time 3, and dropping out occurred disproportionately in the at-home group.)

The histories of sexual abuse were documented through investigation by the State Department of Children and Family Services. we included only subjects molested by persons who were well known to them, thus excluding children abused by strangers or acquaintances. Family membership was not a criterion. Only cases in which some form of genital touching occurred and in which the perpetrator was at least five years older than the victim were

included. Subjects were referred to the study by the State Department of Children and Family Services. Recruitment for the study was not related to any perceived need for psychological assessment or intervention.

The mean age of the subjects at Time 1 was 8.9 (range 5-16 years). Only black subjects were included because this population makes up the bulk of the patients in the area surrounding the hospital. The subjects were of predominantly low SES background, with 64% of their families supported by Public Aid and the remaining subjects dispersed among Hollingshead classes (Hollingshead & Redlich, 1957) 3 through 7.

Abuse characteristics were coded on several dimensions. Seventy-three percent of the children had been subjected to some form of penile penetration (vaginal, oral, or anal). Fifteen percent of the subjects experienced single victimizations, 30% were abused at a frequency of once every 2 weeks or less on the average, and 55% were abused more frequently. The median duration of abuse was approximately 5 months. For a substantial majority of the subjects, the last abuse incident occurred only a short time prior to disclosure, usually within the same week. Ninety-seven percent of the perpetrators were male. In 73% of the cases, the offender lived in the child's household at the time of the abuse. Thirty-two percent of the subjects had been molested by more than one person during their life. The attrition occurring between Time 1 and Time 2 did not significantly affect frequencies

for these variables.

Instruments

We utilized a multimethod assessment approach which included self-report, parent-report, projective, and cognitive measures. Most of these measures served the purpose of assessing basic domains of child functioning. The procedure also included several measures specifically focusing on hypothesized sequelae of sexual abuse.

The Child Behavior Checklist (CBCL). The children's current caregivers (biological or foster mothers) completed the Parent Report form of the CBCL (Achenbach & Edelbrock, 1983) as an assessment of overall behavior problems. The Behavior Problems instrument asks for observations of symptomatic behavior and each item is scored on a 0-2 scale. The Internalizing scale measures inwardly directed, emotional symptoms and the Externalizing scale taps overt, maladaptive behaviors. Achenbach & McConaughy (1987) review evidence for the reliability and validity of the CBCL.

Sexual abuse-related symptoms. We constructed two brief caregiver-report measures of child behaviors and emotions associated with sexual victimization (Shapiro et al., 1992). The Sexual Acting Out Scale includes six items describing overt, age-inappropriate sexual behaviors such as sexually preoccupied play. The Sexual Abuse Anxiety Scale includes five items portraying negative emotional sequelae of molestation such as fear of males. The items were scored on a 0-2 scale depending on

whether the child exhibited the behavior never, sometimes, or frequently.

Children's Depression Inventory (CDI). The CDI (Kovacs & Beck, 1977) is a 27-item self-report measure of depression. Each item consists of three statements designed to portray a range from normal functioning to clinically significant depression. Item scores range from zero to two, resulting in a total score range from zero to 54. A literature review by Kazdin and Petti (1982) describes evidence for the reliability and validity of the CDI.

Intellectual Functioning. The combined score of the Vocabulary and Block Design subtests of the Wechsler Intelligence Scale for Children-Revised (WISC-R; Wechsler, 1974) was chosen as an efficient measure of overall intellectual development; together, these two subtests show a correlation of .91 with Full Scale IQ (Sattler, 1988). The Wide Range Achievement Test-Revised (WRAT-R; Jastak & Wilkinson, 1984) was used to measure the child's level of academic achievement. Two of the test's three subtests were used, namely, computational arithmetic and single-word reading.

The Rorschach Inkblot Test. This standardized projective technique was used to assess the child's ego functioning, coping resources relative to stress, dysphoria, interpersonal representations, and sense of personal boundary intactness. Most of these variables were assessed by means of Exner's (1986; Exner & Weiner, 1982) Comprehensive System. Three of these variables

(F+%, X-%, and WSUMSPC6) were used to assess ego functioning, that is, the ability to perceive ambiguous stimuli in conventional, accurate ways. For the data analyses, we combined these three variables into a single composite measure of overall ego functioning by transforming each subject's scores into z scores and then summing them. The D Score is a standardized score that reflects the difference between measures of adaptive resources and measures of the psychological demands on the subject. Two broad Exner measures of negative affect were used: the Depression Index (DEPI) and the sum of shading determinants.

Interpersonal functioning was assessed by the Mutuality of Autonomy (MOA) Scale (Urist, 1977; Urist & Shill, 1982) and by the Elizur (1949) Rorschach Content (RCT) scale for hostility. The MOA scale rates Rorschach responses along a seven-point scale indexing the health versus pathology of the subject's experience of interpersonal relationships, or object relations. We used the mean MOA score in our analyses. There is growing evidence of the validity of this scale (Blatt, Tuber & Auerbach, 1990; Urist, 1977; Urist & Shill, 1982). In the RCT scale, hostility is scored if the behavior of the percept figure suggests hostility, if the response symbolizes hostility, or if objects of aggression are present. A review of the reliability and validity of this scale is provided by Aronow and Reznikoff (1975).

The Penetration Scale (Fisher & Cleveland, 1958) was used to assess the subject's sense of her personal body boundaries, that

is, the extent to which these boundaries feel intact versus compromised. Rorschach responses are scored for penetration when the percept involved boundaries depicted as broken, blurred, or otherwise penetrable. Such responses are counted to yield a total Penetration score. A review of evidence for the reliability and validity of this scale is provided by Aronow and Reznikoff (1975).

Caregiver Interview. The procedure also included several questions asked of the children's caregivers. The biological mothers were asked if their feelings toward their daughters had changed since disclosure of the abuse. Increased feelings of attachment were coded present if the mother described an increase in positive feelings towards her daughter. (Only a negligible number of mothers reported decreased affection, and many reported no change.) For the children in foster care, the foster mother was asked about the reliability of the mother's visits. Based on their reports, the mothers were categorized as reliable or unreliable in following through on promised visits.

Information about characteristics of the abuse and demographic variables was assembled from caretaker reports, records of investigative interviews with the children, and medical charts.

Procedure

The median Time 1 assessment was 2.6 months (range of three days to six months) following disclosure. The Time 2 assessment occurred nine to fourteen months following the Time 1 assessment (median = 11.2 months). Sixty-three percent of the foster care

children received their Time 1 testing within one week following report of the abuse during an inpatient hospital stay for evaluation, and 37% were tested subsequent to the investigation and their actual placement in foster homes.

Although foster placement may seem a straightforward concept, in practice the decision of how to categorize the subjects on this variable was sometimes complex. We chose the criterion of whether or not there was a change in the child's primary caretaker and home environment rather than the child's administrative status with the state child protection agency; these criteria were mostly, but not always, in accord. Decisions about complex situations are described below; our sample included several children in each of these situations. Subjects were considered to be in the biological home category if they had primarily been raised by and in the home of a relative (usually the maternal grandmother) who was given the administrative status of foster parent when the child protection agency took legal custody of the child following investigation of the abuse. If the child went into the care of her biological father in response to abuse disclosure, and if she had never known him as a primary caretaker, then we considered the subject to belong to the (relative) foster care group because she had experienced a change of primary caretaker and home environment. Children in residential placement were not considered to fit into either category because, although these placements involved a change of daily

caretaker, these decisions were based mostly on a perceived need for intensive therapeutic services; these subjects were not included in the foster care analyses.

According to maternal reports, in all cases of children living in their original homes, the perpetrator had been permanently removed from that home. This consistency was due to the state child protective agency's policy of requiring removal of perpetrators for children who remain at home. We had no ability to independently check the veracity of these maternal reports.

For some analyses, the foster care variable was divided into the two sub-categories of relative foster placement (18 subjects) and regular foster placement (12 subjects). In relative foster placement, the new caretakers were never complete strangers, but there was a wide range in the relationships that existed before the placement occurred. In some cases, the relatives were known but had never been primary caregivers for the child, while in others there had been little contact prior to the placement. When relative and regular foster care were compared, the two children who were in specialized or emergency foster care were excluded from these analyses.

In order to increase sample size, we included at Time 1 some sexually abused children who were evaluated in the hospital prior to our final selection of measures. These children received some psychological testing, but were not assessed on all of the instruments. As a result, our sample size varies somewhat by

test. This variability was a function of the time that the child was tested and was random with respect to the study's variables. There were more subjects who took the Rorschach and intellectual measures than the CDI and parent-report instruments. At Time 2, all subjects received the same assessment battery.

A clinical psychologist or a clinical psychology graduate student administered the Rorschach to the children according to standard directions (Exner, 1986). The Rorschach protocols were scored in a standardized manner (Exner, 1986; Exner & Weiner, 1982) by two clinical psychologists who were unaware of the subject's identity. Interscorer reliability was assessed on a sample of 22 protocols. Pearson and Spearman reliability coefficients for the nine variables we scored ranged from .82 to .93 with a mean of .88.

Results

The descriptive data for our sample at Time 1 were presented in reports of that stage of our analysis. To summarize, the abused girls showed evidence of dysfunction relative to the comparison group on Rorschach measures of ego functioning, dysphoria, object relations, and sense of personal boundary intactness (Leifer et al., 1991) as well as on parent-report, behavioral measures of emotional distress, overt behavior disturbance, and social competence (Shapiro et al., 1992). The abused girls did not show evidence of impairment on a self-report measure of depression (Shapiro et al., 1990) or on measures of

intellectual development (Shapiro et al., 1992).

Change Over Time

The simplest question to be asked concerning children's development in the aftermath of sexual abuse is: Does the functioning of these children improve or deteriorate over time? Accordingly, our analyses began with repeated measures analyses of variance (ANOVAs) which examined change over time as a single variable. For the nonparametric analyses, Wilcoxon tests were used.

On the CBCL Behavior Problems scale, the sample showed no significant change over time, $F(1,39) = 0.42$, ns. There was also no change on the CBCL Social Competence measure, $F(1,39) = 0.03$, ns. There were no changes on either the Sexual Acting Out Scale, $Q = 1.15$, ns, or the Sexual Abuse Anxiety Scale, $Q = 1.21$, ns, suggesting no reduction in behavioral and emotional symptoms closely associated with sexual abuse.

Turning next to measures of dysphoria, Rorschach Sum-Shading scores were lower at Time 2 than at Time 1, $F(1,57) = 9.07$, $p < .005$, suggesting a reduction in the sample's level of overall emotional distress. Rorschach DEPI scores also decreased, $Q = 3.89$, $p < .05$, suggesting a decrease in depression over time. Rorschach Penetration scores went down during the year following cessation of abuse, $F(1,57) = 7.70$, $p < .01$, suggesting some recovery of the subjects' sense of personal boundary intactness. CDI scores decreased over time, $F(1,40) = 13.65$, $p < .001$, as

subjects self-reported less depression at Time 1 than at baseline.

The composite Rorschach measure of ego functioning showed no change from Time 1 to Time 2, $F(1,57) = 0.03$, ns. Thus, there was no evidence for improvement in the subjects' thinking and reality-testing.

The Rorschach standardized D score showed no change over time, $F(1,57) = 0.97$, ns. The D score represents the difference between EA, a measure of coping resources, and ES, a measure of stress impinging on the subject. Interestingly, underlying the lack of change in D scores were decreases in both EA, $F(1,57) = 4.93$, $p < .05$, and ES, $F(1,57) = 4.34$, $p < .05$. These results suggest both some loss of coping resources and a reduction of stress over time, such that the relationship between the two remains constant.

Turning next to interpersonal variables, Rorschach MOA scores showed no change from Time 1 to Time 2, $F(1,52) = 0.35$, ns. Rorschach Hostility scores also showed no significant change, $F(1,57) = 3.90$, ns. There appeared to be no improvement in the subjects' interpersonal experience as assessed by these measures.

There were no significant changes in IQ scores, $F(1,57) = 1.12$, ns, or WRAT-R scores, $F(1,55) = 1.48$, ns. Thus, the sample's rate of intellectual and academic development seemed to remain the same.

The results for change over time present a consistent pattern: The abused children showed decreases in several measures

of affective distress, but they did not show improvement on measures of behavioral disturbance, ego functioning, interpersonal experience, coping resources, or cognitive performance.

Mediators of Outcome in the Year Following Disclosure of Abuse

For the foster placement variable, repeated measures analyses of covariance (MANCOVAs) with age, SES, and number of abuse incidents as covariates indicated no effects on any of the procedure's parametric variables; foster children did not differ from subjects remaining at home either in their average scores from Time 1 and Time 2 or in their change scores over time. Thus, foster care per se did not appear to have a significant impact on our subjects' development or adjustment.

To examine the significance of the children's residence when the baseline assessment occurred, we performed repeated measures ANCOVAs with the following three groups: (1) children who were at home at Time 1 and at home at Time 2, (2) children who were at home at Time 1 and in foster care at Time 2, and (3) children who were in foster care at both time points. The three-group analyses, in which children in foster placement during both assessments were distinguished from foster children at home at baseline assessment, also produced nonsignificant results for all of the dependent variables.

The next stage of our analyses involved two-way repeated measures MANCOVAs with foster placement and several other independent variables. The purpose of these analyses was to

examine the main effects of the independent variables and their interactions with foster placement; such interaction effects would be related to the question of which children function better in foster placement and which adjust better in their biological homes. We used only the Rorschach and IQ scores as dependent variables in these analyses in order to reduce the number of statistical tests, focus on child-generated (rather than parent-report) data, and because the two-way analyses required the greater number of subjects who completed these measures. Using the Systat statistical package's Multivariate General Linear Hypothesis program (Wilkinson, 1987), we were able to perform two-way MANCOVAs with both dichotomous and continuous independent variables.

There were main effects for age on Rorschach shading scores for both the between subject analysis (average scores), $F(1,48) = 5.52$, $p < .05$, and the within subject analysis (change scores), $F(1,48) = 4.73$, $p < .05$. Older subjects produced higher shading scores as a group and also showed relative increases in these scores over time, compared to younger children. Age was not significantly related to any of the other variables. There were no significant age x placement interactions on any of the variables.

Number of abuse incidents was associated with changes in IQ. $F(1,42) = 4.20$, $p < .05$; subjects abused a large number of times showed decreases in IQ. This variable was unrelated to the other

dependent variables. There were no significant interactions with foster placement.

There were no main effects for the variable of whether the perpetrator lived in the child's home. In the between subject analyses, this variable showed an interaction with foster care on IQ scores, $F(1,48) = 5.48$, $p < .05$. Subjects abused by an in-home perpetrator produced higher IQ scores if they remained at home, whereas the other group produced higher scores if they were placed in foster care.

Given the number of statistical tests pertaining to mediators of adjustment in this section, the number of results significant at the 95% confidence level is unimpressive. Use of the Bonferroni correction would have eliminated the significant results that were obtained.

Cross-Sectional Analysis

Our procedure included several questions that specifically pertained to either the foster care or at-home groups but not to both. Thus, these questions could be asked of only about half the subjects. Because of this reduction of sample size, it was necessary to include the subjects added at Time 2, so that longitudinal analyses could not be performed. ANOVAs, without covariates, were used to analyze these Time 2 data; the covariates were omitted because the importance of SES and number of abuse incidents lies mostly in their relationship to foster placement, so that there is little variability within these groups (Leifer et

al., 1990), and also because none of our three covariates were significantly related to the independent variables examined in this section. Like the two-way MANCOVAs, these cross-sectional analyses pertain to mediators of child adjustment in the foster care and biological home settings.

Compared to foster children placed with strangers, children placed with relatives produced higher scores on the Rorschach measure of ego functioning, $F(1,39) = 5.03$, $p < .05$, and also higher WISC-R scores, $F(1,39) = 6.93$, $p < .01$. There were nonsignificant results for the other measures. (Although these results suggest that the two types of foster care show different relationships with some aspects of child functioning, our sample size in conjunction with the distribution of cases into placement categories required use of a single foster care category in the two-way analyses.)

The children of mothers who responded to disclosure of abuse with increased feelings of caring and affection for their daughters seemed to function better at Time 2, compared to children whose mothers' feelings didn't change or changed negatively. When the biological mothers intensified their caring for their biological children, the subjects received higher Social Competence scores, $F(1,34) = 5.37$, $p < .05$, suggesting better functioning in school, at home, and with peers. These children also produced higher Rorschach D scores, $F(1,34) = 5.14$, $p < .05$, suggesting stronger coping resources relative to stress demands.

In addition, their Rorschach shading scores were lower, $F(1,34) = 4.26$, $p < .05$, as these subjects seemed to experience lower levels of emotional distress. Other results were nonsignificant.

Foster children whose mothers were reliable in their visits exhibited better functioning on two measures, compared to foster children whose mothers were unreliable. These children received Behavior Problems scores, $F(1,39) = 5.99$, $p < .05$, suggesting less overall maladjustment as perceived by their foster mothers. These children also produced higher WISC-R scores, $F(1,39) = 8.17$, $p < .01$, indicating stronger intellectual development. There were no significant differences on the other variables.

Discussion

The findings indicate that, for the group as a whole, there was a significant decline in affective distress across multiple child measures. The findings of decreased emotional distress are consistent with other longitudinal studies that have found a decline in overall psychopathology over time (Bentovim et al., 1988; Gomes-Schwartz et al., 1990; Goodman et al., 1992; Mannarino et al., 1991; Runyan et al., 1988). However, there were no significant changes for the parent-report measures of behavior problems or abuse-specific symptomatology. The caregivers rated the children as showing above average tendencies of behavior problems, and below average levels of social competence. These results suggest that caretaker perceptions of their abused children as distressed changed more slowly than the affective

status of the children as assessed through child-generated data. The discrepancy between parent-report and the child-generated data may also provide further support for studies that have questioned the validity of parent-report on the CBCL especially when the reporter is a mother who is ambivalent or lacking in support for her child following disclosure (Everson, Hunter, Runyan, Edelson and Coulter, 1989).

The widespread dysfunction exhibited by many of our subjects at Time 1 showed no signs of improvement over time. The Rorschach data indicate that the children continued to show weak coping resources relative to stress demands, disturbed perceptions of relationships, and difficulties in the area of ego functioning. In all, our findings suggest that despite a decline in affective distress, disturbances in the victimized child's personality functioning persist well beyond the initial crisis period. Other longitudinal studies have found that psychological symptomatology continues or worsens over time for many sexually abused children (Bentovim et al., 1988; Gomes-Schwartz et al., 1990; Runyan et al., 1988). Our findings both support and extend this work by indicating that broad domains of personality functioning as well as symptomatology and behavior problems can be seriously compromised by sexual abuse.

Overall, there were no significant differences on any of the measures between girls remaining at home and those placed in foster care. Our data are consistent with those studies

indicating that abused children function poorly whether at home or in foster care and that foster care is not inevitably detrimental (Runyan & Gould, 1985b; Wald, Carlsmith, & Leiderman, 1988).

Past research assessing the impact of foster care has been hampered by a lack of baseline data obtained prior to placement. We evaluated 63% of the children eventually entering foster care prior to their placement. Comparisons between children who were at home when initially assessed and then in foster care at Time 2 and children in foster care during both assessments showed no differences between groups. Our Time 1 data indicated no differences between the girls subsequently placed in foster care and those remaining at home (Leifer et al., in press). Therefore, the lack of differences obtained in the current evaluation cannot be attributed to any pre-existing difference in functioning between children placed in foster care and those remaining at home.

A number of factors may have contributed to the comparable functioning of the foster and home care children. Only two of the children in our study had been in multiple placements, and the incidence of re-abuse was very low (only one known case). Two-thirds of the children in foster care had been placed with relatives, and these children showed better cognitive and ego functioning than did foster children in non-relative placements. Our findings suggest that type of foster home may be related to child outcome variables. Also, the unexpected complexity and

ambiguity of our task in categorizing subjects on the foster placement variable indicates that a dichotomous or trichotomous scheme is an oversimplification of the diverse forms and histories that child-rearing takes, particularly in the African-American community with its emphasis on extended family. Rather than studying foster care as a unitary phenomenon, research comparing the differential effects of various patterns of child-care is needed.

Several maternal variables were related to the subjects' functioning at Time 2. The quality of the mother's current attachment behavior was significantly related to child functioning whether at home or in foster care. When biological mothers reported increased feelings of attachment, their daughters showed more social competence, less distress and more psychological resources to cope with stress. Foster children whose mothers were unreliable about visiting showed more behavior problems and poorer cognitive functioning than did children whose mothers were reliable in their visits. These findings are consistent with studies indicating that the mother's support of the sexually victimized girl plays a key role in the child's psychological functioning (Adams-Tucker, 1982; Everson et al., 1989; Goodwin, 1981; Johnson & Kenkel, 1991; Leifer et al., in press; Sirles & Frank, 1989; Tufts, 1984). It should be noted that our Time 1 analysis (Leifer et al., in press) included several maternal variables that seem like good candidates for mediators of the

effects of placement but that we were unable to examine in the two-way analyses because they were so strongly associated with placement that adequate sample size in each of the four groups was precluded. These variables were maternal support to the child, maternal drug use, and the mother's own social support system. (In all three cases, maternal dysfunction was associated with foster placement.) Other variables that may also mediate impact in the period following disclosure include legal interventions especially criminal prosecution and the child's participation in court proceedings (Runyan et al., 1988) and mental health treatment.

This study documents the value of longitudinal study in enhancing our understanding of the effects of sexual abuse. Although some aspects of psychological functioning improve in the months following abuse, many sexually victimized children remain at substantial risk for poor developmental outcomes whether remaining at home or placed in foster care. Their poor functioning may result not only from the sexual abuse but also from chaotic family lives and difficult attachment relations that existed prior to the abuse. The quality of the mother's attachment behavior seems more important than the foster placement variable, regardless of whether the child goes into foster care or remains at home.

References

- Achenbach, T.M. & Edelbrock, C. (1983). Manual for the child behavior checklist. Burlington, VT: University of Vermont.
- Achenbach, T.M. & McConaughy, S.H. (1987). Empirically-based assessment of child and adolescent psychopathology: Practical applications. Newbury Park, CA: Sage Publications.
- Adams-Tucker, C. (1982). Proximate effects of sexual abuse in childhood. A report on 28 children. American Journal of Psychiatry, 139, 1252-1256.
- Aronow, E. & Reznikoff, M. (1976). Rorschach content interpretation. New York: Grune & Stratton.
- Beitchman, J.H., Zucker, K.J., Hood, J.E., da Costa, G.A., & Akman, D. (1991). A review of the short-term effects of childhood sexual abuse. Child Abuse and Neglect, 15, 537-556.
- Beitchman, J.H., Zucker, K.J., Hood, J., da Costa, G.A., Akman, D. & Cassavia, E. (1992). A review of the long-term effects of child sexual abuse. Child Abuse and Neglect, 16, 101-118.
- Bentovim, A., Boston, P., & Van Elburg, A. (1982). Child sexual abuse - children and families referred to a treatment project and the effects of intervention. British Medical Journal, 295, 1453-1457.

- Blatt, S., Tuber, S., & Auerbach, J. (1990). Representation of interpersonal interactions on the Rorschach and level of psychopathology. Journal of Personality Assessment, 54, 711-728.
- Browne, A., & Finkelhor, D. (1986). The impact of sexual abuse: A review of the research. Psychological Bulletin, 99, 66-77.
- Elizur, A. (1949). Content analysis of the Rorschach with regard to anxiety and hostility. Journal of Projective Techniques, 13, 247-284.
- Everson, M.D., Hunter, M.P., Runyan, D.K., Edelsohn, G.A., & Coulter, M.L. (1989). Maternal support following disclosure of incest. American Journal of Orthopsychiatry, 59, 197-207.
- Exner, J.E. (1986). The Rorschach: A comprehensive system. 2nd Edition. New York: Wiley.
- Exner, J.E. & Weiner, I.B. (1982). The Rorschach: A comprehensive system, Vol. 3. New York: Wiley.
- Finkelhor, D. (1983). Removing the child--prosecuting the offender in cases of sexual abuse: Evidence from the national reporting system for child abuse and neglect. Child Abuse and Neglect, 7, 195-205.
- Finkelhor, D. (1986). Designing new studies. In D. Finkelhor and associates (Eds.), A source-book on child sexual abuse, (pp. 199-233). Beverly Hills: Sage.

- Finkelhor, D. (1990). Early and long effects of child sexual abuse: An update. Professional Psychology: Research and Practice, 1990, 21, 325-330.
- Fisher, S. & Cleveland, S.E. (1958). Body image and personality. New York: Van Nostrade Rheinhold.
- Friedrich, W. and Reams, R. (1987). Course of psychological symptoms in sexually abused young children. Psychotherapy, 24, 160-170.
- Gomes-Schwartz, B., Horowitz, J.M., & Cardarelli, A.P. (1990). Child sexual abuse. Newbury Park, CA.
- Goodman, G.S., Taub, E.P., Jones, D.P.H., England, P., Port, L.K., Rudy, L., & Prado, L. (1992). Emotional effects of criminal court testimony on child sexual assault victims. Monographs of the Society for Research in Child Development, 57,(5). Chicago: University of Chicago.
- Goodwin, J. (1981). Suicide attempts in sexual abuse victims and their mothers. Child Abuse and Neglect, 5, 217-221.
- Hochstadt, N.J., Jaudes, P.K., Zimo, D.A., & Schachter, J. (1987). The medical and psychosocial needs of children entering foster care. Child Abuse and Neglect, 11, 53-62.
- Hollingshead, A. & Redlich, H. (1958). Social class and mental illness: A community study. New York: Wiley.
- Hulse, T.C. & White, R. (1989). Family characteristics and measures of behavior in foster and nonfoster children. American Journal of Orthopsychiatry, 59, 502-509.

- Mannarino, A.P., Cohen, J.A., Smith, J.A., & Moore-Motily, S.
(1991). Six and twelve month follow-up of sexually abused girls. Journal of Interpersonal Violence, 6, 494-511.
- Runyan, D., Everson, M., Edelsohn, G., Hunter, W., & Coulter, M.
(1988). Impact of legal intervention on sexually abused children. Journal of Pediatrics, 113, 647-653.
- Runyan, D. & Gould, C.L. (1985a). Foster care for child maltreatment: Impact on delinquent behavior. Pediatrics, 75, 841-847.
- Runyan, D. & Gould, C.L. (1985b). Foster care for child maltreatment, II. Impact on school performance. Pediatrics, 76, 848-854.
- Runyan, D.K., Coulter, M.L., Edelsohn, G.A., Estroff, S.E., Everson, M.O., Harris, E., Hunter, W.M., King, N., & Porter, C.S. (n.d.). Impact of legal intervention on sexually abused children. (Interim Final Report for NCCAN Grant No. 90CA0921). Chapel Hill, NC: University of North Carolina. Department of Social and Administrative Medicine.
- Sattler, J.M. (1988). Assessment of children, 3rd Edition. San Diego, CA: Jerome Sattler.
- Shapiro, J., Leifer, M., Martone, M., & Kassem, L. (1990). Multimethod assessment of depression in sexually abused girls. Journal of Personality Assessment, 55, 234-248.

- Shapiro, J., Leifer, M., Martone, M., & Kassem, L. (1992). Cognitive functioning, social competence and abuse-related variables as predictions of maladjustment in sexually abused girls. Journal of Interpersonal Violence, 7, 156-164.
- Sirles, E.A. & Franke, P.J. (1989). Factors influencing mothers' reactions to intra-familial sexual abuse. Child Abuse and Neglect, 13, 131-139.
- Tufts, New England Medical Center, Division of Child Psychiatry. (1984). Sexually exploited children: Service and research project. (Final Report No. 80-JN-AY001 for the Office of Juvenile Justice and Delinquency Prevention). Washington, D.C.: U.S. Department of Justice.
- Urist, J. (1977). The Rorschach test and the assessment of object relations. Journal of Personality Assessment, 41, 3-9.
- Urist, J. & Shill, M. (1982). Validity of the Rorschach Mutuality of Autonomy Scale: A replication using excerpted responses. Journal of Personality Assessment, 46, 450-454.
- Wald, M.S., Carlsmith, J.M., & Leiderman, P.H. (1988). Protecting abused and neglected children. Stanford, CA: Stanford University Press.
- Wechsler, D. (1974). Manual for the Wechsler Intelligence Scale for Children-Revised. New York: Psychological Corporation.
- Wilkinson, L. (1987). Systat: The system for statistics. Evanston, IL Systat, Inc.